REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 11-29 are now present in this application. Claims 11, 19 and 29 are independent. Reconsideration of this application is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 11-25 and 27-29 stand rejected over Shimizume considered with Finkelstein (and Fairchild). This rejection is respectfully traversed.

Because the rejection is based on 35 U.S.C. §103, what is in issue in such a rejection is "the invention as a whole," not just a few features of the claimed invention. Under 35 U.S.C. §103, a patent may not be obtained if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. The determination under §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. See Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 U.S.C. §103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed

invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232(Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Shimizume differs substantially from the claimed invention. As disclosed in col. 7, lines 4-44, Shimizume determines an absolute time, reproduction time from the innermost region of a CD-Rom disk, to determine where to switch from CAV method to the CLV method. The reproduction time corresponds to a specific distance from the innermost region of the disk. Thus, Shimizume is seen as basing his decision concerning switching from the CAV method to the CLV method on a relatively straightforward distance measurement based the time needed to record information on the disk to that distance from the innermost portion of the disk.

Shimizume has no disclosure of (1) detecting a sync signal from signals embedded in a wobbled physical track; (2) checking the frequency of the detected sync signal; and (3) determining whether to change the recording mode or not based on the checked frequency, as recited.

The position of the Office is in disagreement with Applicant's position in this regard. For example, the outstanding Office Action states, with respect to claim 11, for example, that Shimizume "refers to cd-rom," referencing col. 7, lines 5-10, and that the "Examiner interprets such to mean atip data sync signals embedded in a wobble physical track are present, especially because such is considered well known."

Applicant disagrees with the Office's position in this regard because the portion of Shimizume primarily relied on in the Office Action, i.e., from col. 9, line 36 to col. 13, line 47, to disclose (a) detecting a sync signal from signals embedded in a wobbled physical track; (b) checking the frequency of the detected sync signal and (c) determining whether to change the recording mode or not based on the checked frequency, does not disclose these positively recited features for a number of reasons.

Firstly, it is Applicant's understanding that ATIP, i.e., Absolute Time in Groove, which is information required so that a drive knows what type of disc it is writing to, and so that it does not stray from the spiral it is supposed to write in, is not normally contained in the CD-ROM's discussed in Shimizume because ATIP is only needed for writing, and CD-ROM's cannot be written to

once they have been created. Because of this fact, one of ordinary skill in the art would not expect the CD-ROM's used in Shimizume to have ATIP information. In other words, one of ordinary skill in the art would not expect that Shimizume's CD-ROM's would contain ATIP wobble or that they would have a sync signal detected from signals embedded in a wobbled physical track, as recited.

Moreover, the Office Action primarily relies on Fig. 6 of Shimizume and admits that Fig. 6 focuses on a reproduction system. Applicant agrees and believes that one reason for this is that Shimizume focuses on CD-ROM's that have already been recorded and do not need ATIP information to be recorded, especially if they are pressed at a factory.

Furthermore, the burden is on the Office to establish by objective factual evidence that Shimizume's CD-ROM's explicitly or inherently contain the recited wobble feature. The Office presents no such evidence. Not only does Shimizume fail to explicitly disclose the positively recited wobble feature, but it also fails to disclose this feature inherently. In this regard, Applicant respectfully submits that inherency may not be established by probabilities or possibilities. What is alleged to be inherently disclosed must be necessarily disclosed. In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) and In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Additionally, during patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

If the PTO fails to meet this burden, then the applicant is entitled to the patent. However, when a *prima facie* case is made, the burden shifts to the applicant to come forward with evidence and/or argument supporting patentability. Patentability *vel non* is then determined on the entirety of the record, by a preponderance of evidence and weight of argument, *Id.* Applicant respectfully submits that this burden has not been met.

Secondly, Shimizume recognizes the reproduction rate of data from the disk on the basis of the frequency of a variable clock (col. 12, lines 1-11), i.e., not on the basis of a synchronization signal detected from signals embedded in a wobbled physical track.

The Office Action then turns to Fairchild, which allegedly discloses ATIP recording for wobbled grooves "in this environment."

Applicant respectfully submits that Fairchild is not in the same environment as Shimizume in the sense that Shimizume is limited to dealing with CD-ROM's that one of ordinary skill in the art would not expect to have ATIP features, including, a wobbled physical track, whereas Fairchild deals with recordable CD's, e.g., CD-R disks which one of ordinary skill in the art would expect to have ATIP features, including a wobbled physical track.

Thus, Fairchild is not relevant to explaining that a sync signal detected from signals embedded in a wobbled physical track is disclosed by Shimizume.

The Office Action then concludes that it would be obvious to modify the base system of Shimizume with the above teaching of Fairchild, the motivation being "to use standard disc formats commonly available."

In the first place, the Office Action never states what aspect of Shimizume is to be modified or how Fairchild's alleged teaching of ATIP recording for wobbled grooves is to be applied to Shimizume which, as noted above, is concerned with CD-ROM's, not recordable CD-R's, for example. Accordingly, the rejection is fundamentally unsound.

In the second place, even if Shimizume were modified to provide detection of a sync signal from signals embedded in a wobbled physical track, and to check the frequency of the detected sync signal, there is no teaching in either Shimizume or Fairchild of determining whether to change the recording mode or not based on the checked frequency, as recited.

Moreover, the Office Action has not made out a *prima facie* case of proper motivation to modify Shimizume in view of Fairchild. Shimizume was filed more than two and 1/2 years after Fairchild, shows no need to be modified, and there is no apparent improvement in Shimizume that would result from being modified by Fairchild, especially, where the Office Action provides no indication of that aspect of Shimizume which is to be modified or what aspect of Fairchild is to be used to modify the unspecified portion of Shimizume,

especially in the absence of any specific reason to do so. Furthermore, based on Shimizume's disclosure of only CD-ROM's that do not inherently contain ATIP wobble features, one of ordinary skill in the art would certainly have even less incentive to modify Shimizume in view of Fairchild.

In the third place, the Office Action never demonstrates what standard formats are missing from Shimizume that are provided by Fairchild.

Accordingly, the rejection of independent claims 11, 19 and 29 is improper and should be withdrawn.

With respect to claims 12 and 20, which recite a combination of features, including wherein the sync signal is detected while recording input data to a recording medium in CAV mode, the Office Action then turns to Finkelstein, which allegedly teaches "the direct read during write ability."

The outstanding Office Action concludes that it would be obvious to modify Shimizume in view of Finkelstein to ensure proper recording during writing as well as monitoring the required signal format parameters.

Applicant respectfully submits that even if it were obvious to provide read and write capability for Shimizume, it would not be obvious to determine whether to change the recording mode or not based on the checked frequency, as recited, because none of the three applied references discloses or suggests such a feature.

Moreover, the Office Action does not provide objective factual evidence needed to make out a *prima facie* case of proper motivation to modify

Shimizume in view of Finkelstein. Finkelstein makes use of the rapidity with which MO optical media cools to a hardened magnetic state upon removal of the write power level (col. 2, lines 24-29). Finkelstein also discloses that MO optical media is erasable (col. 1, lines 47-49). In this regard, the Office Action has not demonstrated that CD-ROMs have these characteristics, i.e., erasability and cooling to a hardened magnetic state upon removal of a laser write level.

Further, with respect to claims 14 and 22, Applicant respectfully disagrees that the reference combination applied in this rejection discloses that "changing the recording mode changes a rotating mode from CAV to CLV according to the checked frequency," as recited. As pointed out above, none of the applied references disclose or suggest the precursor to this step, i.e., the applied references fail to disclose or suggest determining whether to change the recording mode or not based on the checked frequency. Because they fail to disclose the prerequisite for the step recited in claim 14, they do not disclose or suggest the logically following step recited in claim 14. Similar comments apply to the rejection of claim 22.

Further, with respect to claims 15 and 23, none of the applied references disclose determining a recording speed according to the checked frequency, and the Office Action has not made out a *prima facie* case that it would be obvious to modify Shimizume to check that frequency for reasons stated above.

Moreover, all dependent claims are allowable at least because of their dependency from one of the aforementioned independent claims as well as the additional limitations recited therein.

Reconsideration and withdrawal of this rejection of claims 11-25 and 27-29 is respectfully requested.

Claim 26 stands rejected under 35 U.S.C. §103(a) as unpatentable over the art applied in the rejection of claim 24, discussed above, in view of U.S. Patent 4,766,502 to Mashimo. This rejection is respectfully traversed.

In addition to the features recited in claim 24, claim 26 positively recites that the signal is a wobble signal and the measuring converts the wobble signal to a square wave and counts the pulses of a square wave.

The Office Action admits that the aforementioned reference combination used to reject claim 24 does not disclose such a feature.

In an attempt to remedy this shortcoming, the Office Action turns to Mashimo. Mashimo is a circa 1987 video signal recording apparatus that determines whether a disk is a CAV disk or a CLV disk and, based on that determination, rotates the disk in either the CAV mode or the CLV mode.

The Office Action provides no objective factual evidence that one of ordinary skill in the art would be motivated to look to Mashimo to modify Shimizume, which is a circa 1997 disk drive system that rotates a disk in both CAV and CLV modes. Applicant respectfully submits that one of ordinary skill in the art would not look to a device like Mashimo's for a function

(discrimination between CLV disks and CAV disks), that Shimizume's device does not have a need to provide to operate properly.

Moreover, even if it were obvious to modify Shimizume in view of Mashimo, which has not been established on a *prima facie* basis by the Office Action, the Office Action does not provide objective factual evidence that one of ordinary skill in the art would be motivated to modify Shimizume as suggested because Shimizume does not disclose using disks pre-recorded with a discrimination signal indicating whether the disk is a CAV disk or a CLV disk, as apparently required by Mashimo (col. 1, lines 41-61).

Accordingly, the Office Action fails to make out a *prima facie* showing of obviousness of the invention recited in claim 26.

Reconsideration and withdrawal of this rejection of claim 26 is respectfully requested.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone

Robert J. Webster, Registration No. 46,472, at (703) 205-8076, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

Pursuant to the provisions of 37 CFR 1.17 and 1.136(a), Applicant respectfully petitions for a one (1) month extension of time for filing a response in connection with the present application. The required fee of $120.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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